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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HARTMAN JR, RONALD D

ART UNIT PAPER NUMBER

2121

DATE MAILED: 08/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/666,854

Applicant(s)

FEHRER ET AL.

Examiner

Ronald D. Hartman Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/25/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

PD

DETAILED ACTION

1. Claims 13-27 are presented for further examination.

Claim Objections

2. Claim 16 is objected to because it refers to a selection support unit, wherein there specification only provides support for a selection unit, not a selection "support" unit. Line 3, "select" should read, "selected".

Claim 17 is objected to because it refers to a "manual" selection of a bus protocol engine, and the Examiner is confused as to how electronics may manually select anything since manually infers that a persons hands must be used, and therefore this feature has been interpreted in light of claim 18 in which an automatic selection step is claimed since as already mentioned, electronics cannot make manual selections.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 13-14 and 16-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Skeen et al., U.S. Patent No. 5,187,787.

As per claims 13, 21 and 25, Skeen et al. teaches an electronic apparatus (e.g. Figure 1, element 10; "Host 1") that communicates with at least one additional electronic apparatus (e.g. Figure 1, element 12; "Host 2") via a data bus (e.g. Figure 1, element 14) using a predetermined communication protocol (e.g. C6 L56-59), the electronic apparatus comprising:

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- a bus interface (e.g. Figure 1, element 20; "Communications Interface");
- a control engine which comprises:
 - an application specific engine that controls the electronic apparatus independently of the predetermined communications protocol (e.g. Figure 1, element 16); and
- a bus protocol specific engine that transmits and receives data via the data bus interface (e.g. Figure 1, element 30), wherein the application specific engine and the bus protocol specific engine are decoupled from one another (e.g. C2 L63- C3 L20) and the engines exchange data via a standardized interface (e.g. Figure 1, element 32), and wherein data received by the standardized interface is converted into the predetermined communication protocol by the bus protocol specific engine and data received by the bus interface is converted into corresponding application specific data by the bus protocol specific engine (e.g. C8 L47-62).

In essence, claim 13 claims, and Skeen et al. adequately teaches, a system in which two CPU's or computers may communicate with one another using different communication protocols, wherein each CPU or computer possesses the ability to convert an incoming transmission in one protocol into another protocol used by the receiving CPU, and vice versa. In other words, each computer possesses a protocol converter for converting incoming signals into a protocol which may be utilized by the receiving computer.

As per claim 14, Skeen et al further teaches the electronic apparatus's control engine includes a plurality of bus protocol specific engines, wherein the plurality of engines is associated with a plurality of bus protocols and wherein each engine converts application specific data into the associated bus protocol,

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and vice versa (e.g. Figure 16 elements 237, 239 and 241; Figure 16 element 30A; Figure 16 element 32; Figure 8).

As per claims 16-18 and 26, Skeen et al further teaches a single bus interface (e.g. Figure 1 elements 20 or 22) and a feature wherein a selection of an appropriate bus protocol is performed is a feature which is inherent to the teachings of Skeen et al since Skeen's system would not function if this step was not performed and since this is essentially the overall inventive concept of Skeen et al.

As per claims 19-20 and a feature wherein a set of elements (e.g. messages) is communicated to the control engine of each CPU or computer, wherein each message defines application specific data, this feature is believed to be adequately contemplated by the rejection of at least claim 13 and the disclosure of Skeen et al.

As per claim 22, a feature wherein configuration settings are read and set by each CPU or computer is a feature that is inherent to Skeen et al since clearly some type of information fetching is needed, and this information is preferably stored in some type of memory, so that the CPU or computer can accurately and effectively convert each incoming protocol message, and therefore these features are believed to be inherent to Skeen et al.

As per claims 23-24, Skeen et al further teaches that each CPU is a computer (e.g. Figure 1 elements 10 and 12).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to

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be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Skeen et al., as applied to claim 14 above, in further view of Kimura et al.

As per claim 15, Skeen et al does not specifically teach the utilization of more than one bus interface for use in converting between communication protocols.

Kimura et al. teaches a protocol converter in which more than one interface are utilized in order to communicate using more than one type of communication protocol (e.g. Figure 4 elements 35, 36 and 37).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Kimura et al into the system disclosed by Skeen et al for the purpose of allowing more than communication protocol to be utilized during communications between remotely located computers, and it would have been further obvious to have incorporated the protocol converting mechanism of Kimura et al. into each of the nodes, or computers as disclosed by Skeen et al, for the purpose of allowing each computer the ability to determine how each incoming message should be converted, and this would allow for greater flexibility in a distributed communication network, and this would have been obvious to one of ordinary skill in the art at the time the invention was made.

7. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Skeen et al., as applied to claim 24 above, in further view of Brody et al., U.S. Patent No. 6,278,697.

As per claim 24, Skeen et al. does not specifically teach the utilization of hand held type computing device, such as a PDA.

Brody et al teaches a method and apparatus for converting between different protocols utilized by electronic devices communicating with one another. Brody et al teaches that the system allows for a device, communicating in one

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protocol, to communicate with another device, using an entirely different communication protocol (e.g. Abstract) and that the communication devices may be comprised of PDA's (e.g. C4 L9-21).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Brody et al into the system disclosed by Skeen et al for the purpose of allowing several portable computers to communicate with one another, even though the devices may communicate separately using different communication protocols, thereby increasing the flexibility of the communication system and allowing users of personal type computers, such as a PDA, to utilize the obvious benefits of allowing devices to communicate flexibly between different communication protocols, and this would have been obvious to one of ordinary skill in the art at the time the invention was made.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald D. Hartman Jr. whose telephone number is (571) 272-3684. The examiner can normally be reached on Mon.-Fri., 11:00 - 7:30 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on (571) 272-3687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ronald D Hartman Jr.

Patent Examiner

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RDH

August 1, 2005



Anthony Knight
Supervisory Patent Examiner
Group 3600